Safety Instructions

This product has been manufactured to satisfy the international safety standards.
Please read all of safety and operating instructions before operating the product and keep this manual for future reference.

MAINS SUPPLY
AC 90-250V~ 50/60Hz

OVERLOADING
Do not overload a wall outlet, extension cord or adapter as this may result in electric fire or shock.

LIQUIDS
The product should not be exposed to any liquids such as dripping or splashing. No objects filled with liquids, such as vases, should be placed on the apparatus.

CLEANING
Before cleaning, disconnect the product from the wall outlet. Use a cloth lightly dampened with water (no solvents) to clean the exterior.

VENTILATION
The slots on top of the product must be left uncovered to allow proper airflow to the unit. Do not stand the product on soft furnishings or carpets. Do not expose the product to direct sunlight, place it near a heater. Do not stack electronic equipment on top of the product.

ATTACHMENTS
Do not use any attachment that is recommended by the manufacturer; it may cause a hazard or damage the product.

CONNECTION TO THE SATELLITE DISH LNB
Disconnect the product from the mains before connecting or disconnecting the cable from the satellite dish. Failure to do so can damage the LNB.

CONNECTION TO THE TV
Disconnect the product from the mains before connecting or disconnecting the cable from the satellite dish. Failure to do so can damage the TV.

LOCATION
Place the product indoors in order not to expose to lightning, rain or sunlight.
Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifier) that product heat.

LIGHTNING, or NOT IN USE
Unplug the produce from the wall outlet and disconnect the cable during a lightning storm or when unused for a long time.

SERVICING
Do not attempt service this product yourself, as opening or removing covers may expose you to dangerous voltage or other hazard. Refer all servicing to qualified service personnel.

Contents

Before You Begin

General Features

• Accurate, Brilliant Friendly OSD with Full Function

• MPEG-2 & Fully DVB Compliant

• MPEG-2 Video (MP@ML), MPEG-1 Audio Layer1, Layer2

• PLL RF-Modulator UHF 21~69 (Optional)

• LNB Controlling Logic (0/22kHz Tone)

• SCPC/MCPC Receivable from C /Ku-Band Satellites

• Digital Tuner with Loop-through

• Wide Symbol Rate 1~45Mbps & Frequency Input 950~2150MHz

• DiSEqC 1.0 & 1.2 Supported (Go to X function)

• 2 SCARTS for TV and VCR (optional)

• 256 Colours Graphic User Interface

• Multi-language Menu

• 4-digit 7-segment LED Display (Time clock in Stand-by mode)

• OSD Teletext Supported

• EPG (Electronic Programme Guide) for On-screen Channel Information

• Installation by Easy Setup Guide

• 4000 Channels (TV:3,000/Radio:1,000), 2000 Transponders, 100 Satellites Storing

• User-friendly Data Editing Function

• Favourite Channel and Parental Lock Function

• RS232C Port for Additional Information Services and Upgrading System Software

Accessories

• User's Manual

• Remote Control Unit

• Batteries (AAA)

• RCA Cable (Optional)

Controls and Functions

Front Panel

❶ **Power ( )** button
Turns your receiver On/Off.

❷ **Arrow (◄/►)** buttons (Optional)
Adjusts the volume and moves the cursor left/right on the menu.

❸ **Arrow (▲/▼)** buttons
Changes channels or moves the cursor up/down on the menu.

❹ **MENU** button (Optional)
Displays the menu.
Exits from the current menu or goes to the previous menu.

❺ **OK** button (Optional)
Confirms selection.

❻ **DISPLAY** (Optional)
Displays channel information.
Displays local time in Standby mode.

Rear Panel
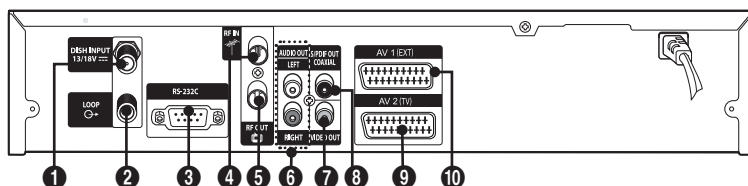
❶ **DISH INPUT**
Connects to the satellite dish.

❷ **LOOP**
Loop out is an output port of the DISH INPUT signal.

❸ **RS-232C**
Connects to a PC.
RS232 transfers data to the external computer.

❹ **RF IN** (Optional)
Connects to the TV antenna.

❺ **RF OUT** (Optional)
Connects a RF signal from your STB to RF (ANT) input jack on the TV.

❻ **AUDIO OUT** (LEFT/RIGHT)
Connects to audio input jacks on TV or any external audio system.

❼ **VIDEO OUT** (Optional)
Connects to video input jack on TV or any external video system.

❽ **S/PDIF OUT COAXIAL** (Optional)
Connect to a digital audio component with coaxial cable.

❾ **SCART for TV** (Optional)
Connects to the TV with SCART cables.

❿ **SCART for VCR** (Optional)
Connects to the VCR(AUX) with SCART cables.

Remote Control Unit

❶ **Power ( ) button**
Turns your receiver On/Off.

❷ **Numeric (0~9) buttons**
Controls the number entry and changes
programme channel directly.

❸ **TV/Radio (/) button**
Switches between TV and Radio Channel list.

❹ **Sleep ( ) button**
Shows the time setting for the sleep-timer.

❺ **Clock ( ) button**
Sets the current time.

❻ **Arrow (◄/►) buttons**
Adjusts the volume level or moves the cursor
left or right on the menu.
Arrow (▲/▼) buttons
Changes channels or moves the cursor up or
down on the menu.

❼ **Menu ( ) button**
Displays the menu.
Exits from the current menu or goes to the
previous menu.

❽ **Mute ( ) button**
Mutes audio output.

❾ **Last button**
Shows **Viewed Channel List**.

❿ **Audio ( ) button**
Shows the Input Audio information.

⓫ **Pause (II) button**
Pauses the current screen.

⓬ **OK button**
Shows Channel list while watching TV or
listening to the Radio.

⓭ **EPG ( ) button**
Shows the TV programme guide.

⓮ **VOL +/- buttons**
Adjusts the volume level.

⓯ **Zoom ( ) button (Optional)**
Zooms in the selected screen. The zooming
location changes by pressing direction
buttons. (x2 → normal)

⓰ **Text ( ) button**
Changes to the teletext mode.

⓱ **INFO ( ) button**
Displays programme information in the
screen.

⓲ **Back ( ) button**
Goes to previous menu. The changed values
are to be saved.

⓳ **SAT ( ) button**
Shows satellite channel list.

⓴ **PR +/- buttons**
Changes channel up or down.

㉑ **Page (/) buttons**
Moves up or down pages on the menu and
TV/Radio List.

㉒ **FAV ( ) button**
Go to the last channel you've watched in the
Favourite Channel List 1.
And if pressed again, you can see the last
channel you've watched in the next Favourite
Channel List 2. Repeat pressing the button
until no more Favourite Channel is found.
Then it returns to the current channel.

㉓ **TV/STB ( ) button**
Toggle between TV and STB.
You can choose the date you want on the
EPG menu.

㉔ **F1**

Connections

Loop through | Computer for download
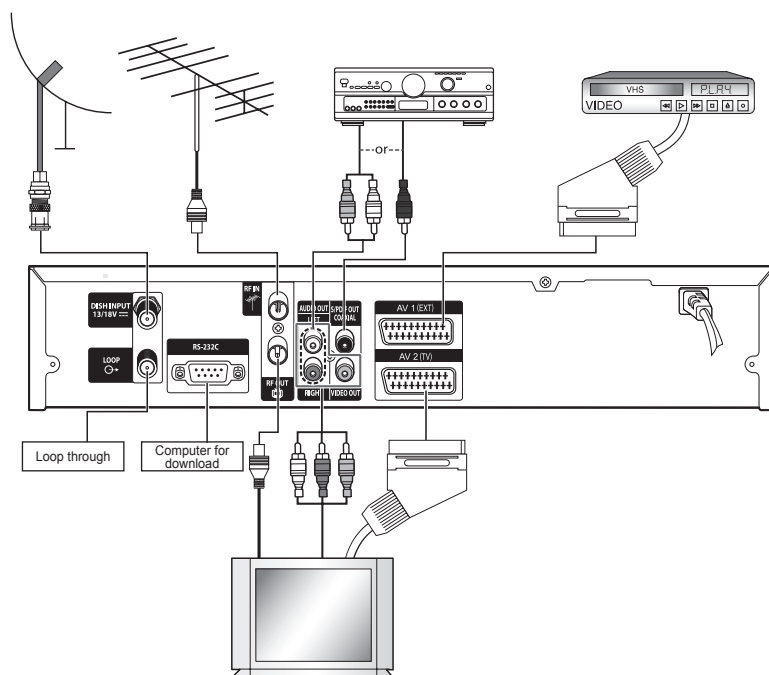
Location of your receiver

• Install your receiver in horizontal position.
• Do not put any heavy stuff such as a TV on your receiver.
• Do not install your receiver in the places as follows: Vibrating place, direct sunrays, Humid place, too high or low temperature, and no ventilated place.

Connecting your receiver with dish system

After installing your antenna system, connect the coaxial cable from the LNB of your antenna to "DISH INPUT" terminal marked at the rear panel of your receiver. All cable connectors should be finger-tightened; do not use any kind of wrench while tightening connectors. The cable should be 75 ohm impedance coaxial twisted at the end with an "F" type connector.

Connecting your analog receiver

To facilitate the user using analog receiver to view analog channels, this product has been provided with a loop through terminal marked as "LOOP." Connect the coaxial cable from this terminal to the IF input terminal of your analog receiver. Now by keeping your receiver in standby, you will be able to tune and view analog channels from your analog receiver.

Connecting your receiver to TV

To connect your receiver with your television, you can use three different methods; via RF cable, RCA cable or SCART cable.
Connect the RF cable to the terminal marked "RF OUT" on the rear panel of your receiver and its other end to the TV RF input socket.
Connect the Video/Audio RCA cables from the VIDEO OUT/AUDIO OUT (LEFT, RIGHT) on the rear of your receiver to the VIDEO INPUT/AUDIO INPUT (LEFT, RIGHT) jacks on the TV.
In the case of connecting your TV through SCART cable, connect the SCART connector marked TV to the respective SCART port on the TV. (depend on model)

Connecting your receiver to VCR (depending on model)

To connect a VCR, your receiver has been provided with SCART at the rear marked "VCR." Using a SCART connector, the VCR can be connected to your receiver.

Connecting external audio/Hi-Fi system

To connect any external Audio Hi-Fi system, your receiver has been provided with two RCA connectors at the rear panel of your receiver, marked with AUDIO L and R respectively to connect the left and right Audio on the external audio/Hi-Fi system.

Connecting digital audio system

Connect a coaxial cable between S/PDIF OUT COAXIAL at the rear panel of your receiver and S/PDIF INPUT COAXIAL on the Digital Audio System.

Initial Settings and Operations

Menu Information

A menu is a field of text shown on the TV screen. Selectable lines are generally activated (highlighted). No-activated lines cannot be selected. Most of menus show short information at the bottom of the screen.

This menu consists of 7 main menus:

- **Installation**
- **System Setup**
- **Channel Setup**
- **Parental Lock**
- **Game**
- **Common Interface**
- **Conditional Access**

1   Using the **Arrow (▲/▼)** buttons you can move upwards and downwards on the menus. On the menus, you can search channels using this button.

2   When you have reached the required subject menu, press the **OK** button to confirm your choice.

3   On the menus, you can select menu items using the **Arrow (◄/►)** buttons.

4   When you want to return to the previous menu with saving the change, press the **Back (↩)** button.

5   When you want to exit from the current menu, press the **Menu (▥)** button.

Getting Started

To start your receiver for the first time, you must select the language for displaying menus and you should set parameters for system configuration and scan satellite channels. Perform the following setup procedure for scanning the satellite. Follow the instructions below to scan satellite channels. You can enjoy watching TV or listening to the Radio after the procedure completes.

1   Turn on your TV and receiver.
Language Setting menu will appear automatically.
OSD Language is highlighted.

### Selecting the On Screen Display (OSD) Language

2   Select the OSD language of your choice using the **Arrow (◄/►)** buttons.
You will see the selected language on the OSD menu.

3   Select **Installation** using the **Arrow (◄/►)** buttons.

Selecting the Antenna Setting

4 Select **Antenna Setting** using the **Arrow (▲/▼)** buttons
and press the **OK** button.
Antenna list and option list will appear.

5 Select the desired satellite using the **Arrow (▲/▼)**
buttons or **Page (▲/▼)** buttons and press the **Arrow (▶)**
button to move through the option list.

6 Set the option list using the **Arrow** buttons.

7 Select options and press the **OK** button to save the
changes.
• Select one or more satellites according to the direction of your satellite dish. You can
select many satellites depending on the direction to the satellites.

8 Press the **Back (⤺)** button to return to the **Installation** menu.
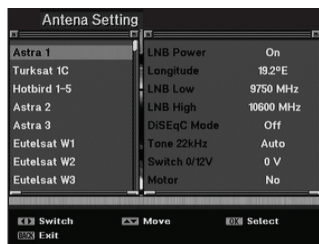
Auto Scanning

9 Select **Auto Scanning** using the **Arrow (▲/▼)** buttons
and press the **OK** button.
The preprogrammed satellite lists will appear.

10 Select an appropriate satellite using the **Arrow (▲/▼)**
buttons and set the channel options using the **Arrow
(◀/▶)** buttons.
• **Off:** Scanning is disabled.
• **All:** Scan all the free and scrambled channels.
• **Free:** Scan free channels only.
• You can set **Off**, **All**, or **Free** to each satellite.

11 Press the **OK** button, **Auto Scanning** will start.
All the channels in the list from the selected satellite will be automatically downloaded.

12 Press the **OK** button to save the changes.

13 Press the **Back (⤺)** button to exit from the menu and press the **Arrow (▲/▼)** buttons to
select the desired channel. Now you can watch TV or listen to the Radio.
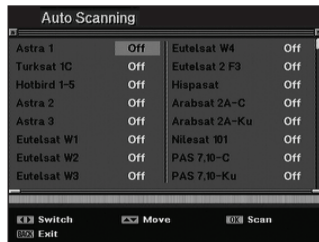
Basic Operation

This section explains various functions while watching TV or listening to the Radio.

Switching Channel

You can switch the current channel by three different methods.
• **Method 1:** Press the **Arrow (▲/▼)** buttons or **PR+/-** buttons.
• **Method 2:** To select a channel directly, select a channel using the **Numeric (0~9)** button.
• **Method 3:**

1 To display the channel list, press the **OK** button.

2 Select a channel you want to watch using the **Arrow (▲/▼)** buttons and then press the **OK** button.
   • If there are multiple channels, use the **Page (▲/▼)** or the **Arrow (◄/►)** buttons to move to channels by page.
   • Press the **TV/Radio (📺/♫)** button to switch between the TV and Radio channel.

Volume Control

To control the volume:
• Press the **VOL+/-** or the **Arrow (◄/►)** buttons.
• Press the **Mute (🔇)** button to turn the sound off.
• Press the **Mute (🔇)** button again or the **VOL+/-** or **Arrow (◄/►)** buttons to cancel muting.

Info Bar

Channel information always appears for a specific period of time whenever you switch channels.

General Information
Press the **INFO (ℹ)** button; you can see general information of the current channel.
❶ Channel number and name
❷ Current time
❸ Signal Level
❹ Signal Quality
❺ Icons: Favourite channel, Locked channel, Radio Channel, Scrambled channel, Subtitle, Teletext information,
❻ EPG information.
❼ Conditional Access

Detailed Channel Information

You can see detailed channel information pressing the **INFO (ⁱ)** button again.

❽ Detailed channel information

❾ Satellite, Frequency, Symbol Rate, FEC, Polarity, Video PID, Audio PID, PCR PID, Transponder

Selecting the soundtrack

You can select the audio language, soundtrack, or sound mode.

1   Press the **Audio (Yellow)** button.

2   Press the **Arrow (▲/▼)** buttons to select the audio language or soundtrack and press the **OK** button.

3   Press the **Arrow (◄/►)** buttons to select the sound mode from **Stereo**, **Mono left**, or **Mono Right**.

Selecting the Subtitle

You can choose the subtitle for the current live TV programme if provided from the broadcasting station.

1   Press the **Text (▤)** button.

2   Press the **Arrow (▲/▼)** buttons to select the subtitle and press the **OK** button.

Selecting the OSD Teletext Information

You can choose the OSD teletext information to be displayed on the screen if provided from the broadcasting station.

1   Press the **Text (▤)** button twice.

2   Press the **Arrow (▲/▼)** buttons to select **OSD teletext** and press the **OK** button.

Selecting the VBI Teletext

You can choose the VBI teletext information to be shown on the screen if provided from the broadcasting station.

1   Press the **Text (▤)** button three times.

2   Press the **Arrow (▲/▼)** buttons to select **VBI teletext** and press the **OK** button.

Clock

You can see the current time pressing the **RED(Clock)** button.

Sleep Timer Function

Press the **GREEN(Sleep)** button, you will see the time set for the sleep timer if already set from the Time Setting menu.

Pause

If you press the **BLUE(Pause)** button, the scene will be paused.

Zoom Function

You can make the picture appear larger on the screen pressing the **Zoom (⊕)** button.

1   Press the **Zoom (⊕)** button.

2   Select the area you want to zoom using the **Arrow** buttons and then press the **OK** button.
Picture is enlarged two times.

3   Each time you press the **Page (▲/▼)** buttons, the picture is enlarged two or four times.
Press the **Arrow (▲/▼/◄/►)** buttons to change the location at the lower right of display.

4   To cancel the Zoom function, press the **Zoom (⊕)** button twice.
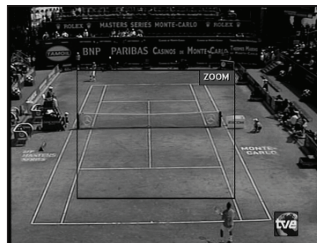
Channel List

You can see the TV or Radio Channel List pressing the **OK** button while watching TV or listening to the Radio. Switch the channel list pressing the **TV/Radio (📺/♫)** button. The icon (€) behind the channel name symbolises scrambled channel, and the (🔒) icon behind the channel name symbolises indicates a locked channel.

Select channel using the **Arrow (▲/▼)**, **PR+/-**, or **Page (▲/▼)** buttons and press the **OK** button to watch.

The coloured buttons show the channel lists as follows:
• **RED(Clock)** button: by alphabetical order (alphabetical A -Z)
• **GREEN(Sleep)** button: by satellites (all/searched satellites)
• **YELLOW(Audio)** button: by names of broadcasting providers
• **BLUE(Pause)** button: by Favourite groups
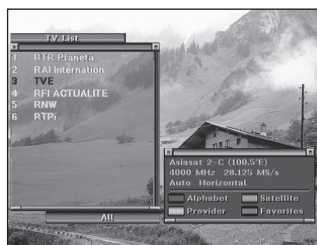
To view channel list in specific order (Alphabet/Satellite/Provider/Favorites)

1   Press the **Coloured (Red /Green/ Yellow/Blue) button.** Channel list is highlighted.

2   Select **Alphabet**, **Satellite**, **Provider**, or **Favorites** using the **Arrow (▲/▼)** buttons. The channel list is sorted automatically by your selection.

3   Select the channel pressing the **Arrow (▲/▼)** or **Page (⬆/⬇)** buttons and press the **OK** button to watch it.

Note
• Favourite group must be set to choose.

Electronic Programme Guide (EPG)

EPG displays programme information such as programme titles, broadcasting schedule, programme synopsis, and such. EPG service differs depending on the service provider.

1   Press the **EPG (◀🖐)** button while watching TV or listening to the Radio. EPG information appears.

2   Select a programme for further more information.
• **Arrow (▲/▼)** buttons: Selects a programme by channel.
• **Arrow (◀/▶)** buttons: Selects a programme by time & date within the same channel. It displays the programme list at 30 minutes intervals.

3   Press the **OK** button, detailed information on the selected event appears.

4   To exit from the EPG mode, press the **Back (↩)** button.

Menu Map

Installation ——————— Antenna Setting
├─ Motor Setting
├─ Auto Scanning
├─ Manual Scanning
├─ Software Upload
└─ Defaults Setting

System Setup ——————— Language Setting ————— OSD Language / Audio 1st Language / Audio 2nd Language / Teletext Language / Subtitle Language / EPG 1st Language / EPG 2ndLanguage
├─ OSD Setting ——————— Transparency / Banner Time / Screen Saver Time / OSD Mode
├─ Media Settings ——————— TV System / TV Aspect Ratio / Video Aspect Ratio / Video Signal Type / RF Channel / Broadcasting System / Video Freeze
├─ Time Setting ——————— Time Zone / Event Type / Switch-on Time / Switch-off Time / TV Program
└─ System Information

Channel Setup ——————— Delete Channels
├─ Delete All Channels
├─ Favorite Channels
└─ Edit Channels

Parental Lock ——————— Channel Lock
├─ System Lock
├─ Scramble Lock
└─ Change PIN Code

Game ——————— Lotto
├─ Tetris
└─ BioRhythm

Common Interface ——— Slot A
└─ Slot B

Conditional Access ——— Slot A
└─ Slot B

Main Menu

The menu has been carefully designed from user-friendly point of view to assure easy operation to your receiver. The main menu is classified into 7 sub menus that will carry out the various operations individually.

Installation

In the **Installation** menu, you can customise antenna setting, channel scanning, and software upgrade. Press the **Menu ( )** button.
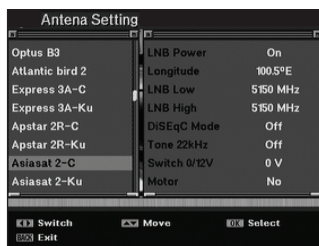Select **Installation** using the **Arrow (◄/►)** buttons on the main menu.

Installation >> Antenna Setting
Antenna Setting

You can set antenna and LNB information for scanning channels. If antenna is not correctly set, you cannot scan channels, therefore you cannot watch any programmes.

1 Select **Antenna Setting** using the **Arrow (▲/▼)** buttons and press the **OK** button.
Antenna setting menu appears.

2 Select satellite for channel scan using the **Arrow (▲/▼)** or **Page (/)** buttons and press the **Arrow (►)** button to select at option.

3 Select an option using the **Arrow** buttons.

◆ **LNB Power**

Set LNB Power to On.

◆ **Longitude**

If you know the exact longitude of your location, use the **Numeric (0~9)** buttons.
Toggle between **E (East)** and **W (West)** using the **Arrow (◄/►)** buttons.

◆ **LNB Low/LNB High**

If you select memorised LNB parameter using the **Arrow (◄/►)** buttons or directly enter new frequency using the **Numeric (0~9)** buttons.

Note
• What is Low Noise Block (LNB)?
The LNB is located at the satellite dish antenna. It amplifies the very weak received satellite signal then converts the received microwave satellite signal so that the signal may not decrease the gain between the dish and your receiver.

◆ **DiSEqC (Digital Satellite Equipment Control) System Mode**

You can select **DiSEqC** using the **Arrow (◄/►)** buttons.
You can select one mode among **DiSEqC A~D** for 2.0 and **Tone Burst A~B** and **Off**.

◆ **Tone 22kHz**

In case you are using a dual LNB or two antennas connected to a 22kHz Tone Switch Box, with 22kHz Tone Switch (**On**, **Off**, or **Auto**) you can switch between LNB or antenna.

◆ **Switch 0/12V**

Switch should be set to **12V** or **0V**.

◆ **Motor**

Select motor setting from **DiSEqC**, **USALS**, **V-BOX**, and **No**.

4   After setting the options, press the **OK** button to save.
   • Select satellite(s) according to the direction of your satellite dish. You can select many satellites depending on the direction to the satellites.

5   Press the **Back (↩)** button to return to the **Installation** menu.

Note
• DiSEqC™ is the registered trademark of Eutelsat Communications.
  A standard through which it is possible to let a DiSEqC compatible receiver send a signal over the RF cable to a switching device to switch between different LNBs or dishes. The DiSEqC uses the 22kHz signal to control the switching device.


Installation >> Motor Setting
Motor Setting

◆ **DiSEqC 1.2**

When Motor is set to **DiSEqC 1.2** in the Antenna Setting menu.

1 Select **Motor Setting** using the **Arrow (▲/▼)** buttons and press the **OK** button.

2 Select a satellite using the **Arrow (▲/▼)** buttons and press the **OK** button. Satellite list appears. Select satellite using the **Arrow (▲/▼)** buttons and press the **RED(Clock)** button. Bulleted list indicates selected satellites.

3 Press the **OK** button to save selected satellites and then press the **Back (⤺)** button.

4 If you press the **YELLOW(Audio)** button, on-screen navigation menu is highlighted. Use the **Arrow** buttons to move the motor to the west, east, north, and south in order. The position of the motor can be restricted to the software setting limits (West/East) using the **RED(Clock)/BLUE(Pause)** buttons.

5 Press the **YELLOW(Audio)** button to highlight **Satellite**.

6 Press the **OK** button on the **Go to satellite** menu. Dish changes its position to the direction of satellite (depending on the types of motor, dish changes its position to the default-direction of satellite for the maximum 28 satellites).

7 Press the **OK** button on the **Save Current Position** menu. Current position of the motor is saved according to the selected satellite.

8 Press the **OK** button in the **Go to Ref. Position** menu. Motor changes its position to the zero longitude/ latitude where the count begins.

9 **Reset Positioner** initialises the position of motor to the default value.

10 **Calculate Positions** selects one satellite to revise the position of motor and saves the changes. Changed position of the motor also applies to the directions for other satellites.
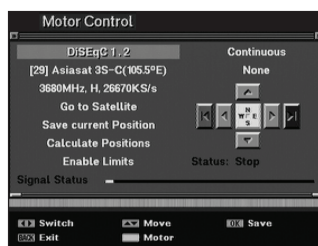
11 Confirm the **Enable Limits/Disable Limits** function pressing the **OK** button. You will be prompted to decide whether to use the West/East Setting Limits setting value.

12 The method to position motor is selected in the **Continuous/Step(Impulses)**/ **Time(Seconds)** menu. If you press the **Arrow (◄/►)** buttons once in the Continuous mode, selected TP signal of the satellite is locked or the motor stops to move. In the **Step(Impulses)** mode, you can select steps (pulse) from 1 to 10. The motor changes its position according to the selected step if moved to the left or right (depending on the motor).
In the **Time(seconds)** mode, you can select time (seconds) from 1 to 20. The motor changes its position according to the selected step if moved to the left or right (depending on the motor).

◆ USALS

When Motor is set to USALS on the Antenna Setting menu.

1 Select **Motor Setting** using the **Arrow (▲/▼)** buttons and press the **OK** button.

2 Select **Satellite** menu using the **Arrow (▲/▼)** buttons and press the **OK** button. Satellite list appears. Select satellite using the **Arrow (▲/▼)** buttons and press the **RED(Clock)** button. Bulleted list indicates selected satellites.

3 Press the **OK** button to save selected satellites and then press the **Back (↰)** button.

4 If you press the **YELLOW(Audio)** button, on-screen navigation menu is highlighted. Use the **Arrow** buttons to move the motor to the west, east, north, and south in order. Position of the motor can be restricted to the software setting limits (West/East) using the **RED(Clock)/BLUE(Pause)** buttons.

5 Press the **YELLOW(Audio)** button to highlight Satellite.
 • This function may not work depending on the types of USALS programme.

6 Enter the value of 000.0 E/W (Latitude) and 000.0 N/S (Longitude) and then press the **OK** button on the **Go to X** menu.
Motor changes its position according to the selected satellite

7 Confirm the **Enable Limits/Disable Limits** function pressing the **OK** button. You will be prompted to decide whether to use the West/East Setting Limits setting value
 • This function may not work depending on the types of USALS programme.

◆ **Positioner**

1   This function is used when receiving DiSEqC 1.2 Command with the adaptor that controls positioner antenna. Select a satellite using the **Arrow (▲/▼)** buttons and press the **OK** button. Satellite list appears. On the satellite list, you can select satellites pressing the **RED(Clock)** button. Press the **OK** button to save the selected satellites.

2   If you press the **YELLOW(Audio)** button, on-screen navigation menu is highlighted. Use the **Arrow (▲/▼/◄/►)** buttons to move the motor to the west, east, north, and south in order. Position of the motor can be restricted to the software setting limits (West/East) using the **RED(Clock)/BLUE(Pause)** buttons.

3   Press the **OK** button on the **Go to satellite** menu. Dish changes its position to the direction of satellite.

4   Press the **OK** button on the **Save Current Position** menu. Current position of the motor is saved according to the selected satellite.

5   Press the **OK** button on the **Go to Ref. Position** menu. Motor changes its position to the zero longitude/latitude where the count begins. (this function is not supported by the adaptor that controls positioner antenna)

6   **Go to Reference** changes the position of control adaptor.

7   **Reset Positioner** initialises the position of motor to the default value.

8   **Calculate Positions** selects one satellite to revise the position of motor and save the changes.

9   Changed position of the motor also applies to the directions for other satellites.

10 Confirm the **Enable Limits/Disable Limits** function pressing the **OK** button. This function may not be supported depending on the model.

11 The method to position motor is selected on the **Continuous/Step(Impulses)/Time(Seconds)** menu, If you press the **Arrow (◄/►)** button once on the **Continuous** mode, selected TP signal of the satellite is locked or the motor stops to move.
On the **Step(Impulses)** mode, you can select steps (pulse) from 1 to 10. The motor changes its position according to the selected step if moved to the left or right (depending on the motor).
On the **Time(Seconds)** mode, you can select time (seconds) from 1 to 20. The motor changes its position according to the selected step if moved to the left or right (depending on the motor).

Installation >> Auto Scanning

Auto Scanning

If you select the satellite to scan channel according to the antenna setting, your receiver can automatically scan the satellite without entering any other information.

1 Select **Auto Scanning** using the **Arrow (▲/▼)** buttons on the **Installation** menu and press the **OK** button.

2 Select satellite to scan channels using the **Arrow (▲/▼)** buttons and select scan mode (**All** or **Free**) using the **Arrow (◄/►)** buttons.
• **All:** Scans all channels.
• **Free:** Scans free channels only.

3 Press the **OK** button, then it starts scanning.
After Auto Scanning completes, you can see TV and Radio channels in the list.

Installation >> Manual Scanning

Manual Scanning

You can scan channels of the selected satellites by transponders if you know the transponder information.

1 Select **Manual Scanning** using the **Arrow (▲/▼)** buttons on the **Installation** menu and press the **OK** button.

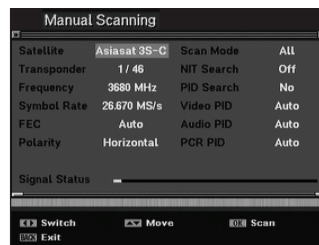**2** Set the following options to complete **Manual Scanning**.

◆ **Satellite:**

Selects a satellite to search from the satellites set on the **Antenna Setting** menu.
Select a satellite using the **Arrow (◄/►)** buttons.

◆ **Transponder:**

Sets the transponder for the selected satellite.
Select a transponder using the **Arrow (◄/►)** buttons.

If you cannot find your desired transponder, select **New** to change transponder information as follows:

• **Frequency**
  Enter the transponder frequency using the **Numeric (0~9)** buttons.

• **Symbol Rate**
  Enter the symbol rate value using the **Numeric (0~9)** buttons.

• **FEC (Forward Error Correction)**
  Select a FEC option **Auto**, **1/2**, **2/3**, **3/4**, **5/6**, and **7/8** using the **Arrow (◄/►)** buttons.

• **Polarity**
  Select a polarity value among **Horizontal**, **Vertical**, **Circular Left**, and **Circular Right** using the **Arrow (◄/►)** buttons.

• Horizontal output is 18V and Vertical output is 13V via LAN.

Note

• What is Transponder?
  A wireless communications device usually attached to a satellite. A transponder receives and transmits incoming signals with in a prescribed frequency range. After receiving the signals the transponder will broadcast those signals with different frequencies.

◆ **Scan Mode**

Decide whether to find free channels only or all the channels including scrambled ones.
Select a scan mode using the **Arrow (◄/►)** buttons.
• **All:** Scans all types of channels.
• **Free:** Scans free channels only.

◆ **NIT Search**

You will be asked whether to search channels for another transponder.
Select either **Yes** or **Off** using the **Arrow (◄/►)** buttons.
Select **Yes** to run Network Search.

◆ **PID Search**

You can manually scan channels by entering individual Packet Identifier (PID) values.
Enter the PID the **Numeric (0~9)** buttons.
First, select a PID type (**Video PID**, **Audio PID**, or **PCR PID**) using the **Arrow (◄/►)**
buttons, then enter the PID value by pressing the **Numeric (0~9)** buttons.

3   Press the **OK** button, then starts scanning.
After Auto Scanning is complete, you can see TV and Radio channels found from Auto Scanning.

Installation >> Software Upload

Software Upload

You can download the software of your receiver through satellite when the new software is
available for your system. During download, don't turn off your receiver. In case the power is
turned off, turned on your receiver again to complete the download.

1   Select **Software Upload** using the **Arrow (▲/▼)** buttons on the **Installation** menu and
press the **OK** button.
• **Program Upload:** Copies all the data from Master STB to Slave STB.
• **Channel Data Upload:** Copies only the channel data from Master STB to Slave STB.
  Connects both Master and Slave STB using RS232C Cable and then press the **OK** button
  on the **Software Upload** menu for the Master STB.

Installation >> Defaults Setting

Defaults Setting

You can restore the default settings in case you have encountered some problems after saving
changes to channel data and others that may be in error.

1   Select **Defaults Setting** using the **Arrow (▲/▼)** buttons on the **Installation** menu and
press the **OK** button.

2   Select a defaults option (**TP Auto roll**, **Factory Defaults**, or **STB Reboot**) using the
Arrow (▲/▼) buttons and press the **OK** button.
• **TP Auto roll:** Resets back to the additional TP list.
• **Factory Defaults:** Resets back to the factory- default settings.
  If you press the **OK** button in this menu, you will see a dialog box asking you to confirm
  the channel defaults or factory defaults setting.
  Select **Yes** or **No**, and press the **OK** button.
• **STB Reboot**
  If you press the **OK** button in this menu, the Set-top box (STB) reboots.

System Setup

You can set the system configuration in this menu. Press the **Menu (▥)** button.
Select **System Setup** using the **Arrow (◄/►)** buttons on the menu.

System Setup >> Language Setting

Language Setting

You can set languages for OSD, Audio1- 2, Teletext, Subtitle, and EPG1- 2.

1 Select **Language Setting** using the **Arrow (▲/▼)** buttons on the **System Setup** menu and press the **OK** button.

2 Select any of **OSD**, **Audio1- 2**, **Teletext**, **Subtitle**, and **EPG1- 2 Languages** using the **Arrow (▲/▼)** buttons and use the **Arrow (◄/►)** buttons to select it's language.

System Setup >> OSD Setting

OSD Setting

You can adjust OSD Transparency, OSD Banner Time, Screen saver Time, and OSD Mode.

1 Select **OSD Setting** using the **Arrow (▲/▼)** buttons on the **System Setup** menu and press the **OK** button.

2 Select any of **Transparency**, **Banner Time**, **Screen saver Time**, and **OSD Mode** using the **Arrow (▲/▼)** buttons and use the **Arrow (◄/►)** buttons to make changes.
• **Transparency:** 0 (opaque) to 100%
• **Banner Time:** 1 to 60secs or **Always**
• **Screen saver Time:** 1 to 60 minutes or **None**
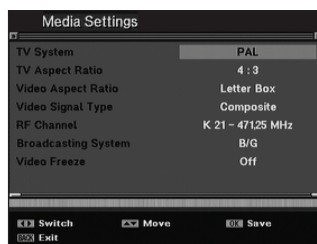• **OSD Mode: STANDARD**, **NATURAL**, or **SOFT**
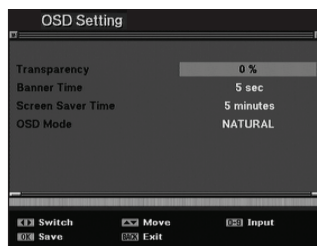
System Setup >> Media Settings

Media Settings

You can enter the various media settings for TV System, TV Aspect Ratio, Video Aspect Ratio, Video Signal Type, RF Channel, Broadcasting System, and Video Freeze.

1 Select **Media Settings** using the **Arrow (▲/▼)** buttons on the **System Setup** menu and press the **OK** button.

2   Select **Media Settings** using the **Arrow (▲/▼)** buttons and press the **Arrow (◄/►)** buttons to make changes.
   • **TV System: PAL**, **SECAM**, **NTSC**, and **AUTO**
   • **TV Aspect Ratio:** You can set the aspect ratio of your TV. (**4:3** or **16:9**)
   • **Video Aspect Ratio**: You can select the display format according to TV screen ratio. (**Letter Box**, **Pan & Scan**, **Mixed**, or **Full**)
   • **Video Signal Type: RGB** or **Composite**
   • **RF Channel:** You can select the UHF channel for the TV. (**K21 ~ K69**)
   • **Broadcasting System: B/G**, **I**, or **D/K**
   • **Video Freeze: On**/**Off**

System Setup >> Time Setting
Time Setting
You can set the time zone and timers such as Event Type, Switch-on Time, Switch-off Time, and TV Programme (for switch-on time function).

1   Select **Time Setting** using the **Arrow (▲/▼)** buttons on the **System Setup** menu and press the **OK** button.

◆ **Time Zone**

   Press the **Arrow (◄/►)** or **Page (▲/▼)** buttons to set the time zone. The local time will be automatically changed by this setting.

◆ **Event Type**

   Press the **Arrow (◄/►)** buttons to select the frequency you want to schedule: **Once**, **Daily**, **Every Sunday**, or **Every Saturday**.
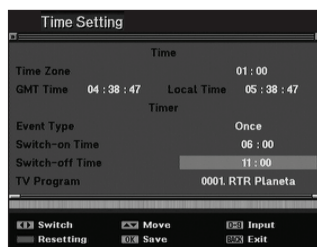
◆ **Switch-on Time/Switch-off Time**

   Press the **Numeric (0~9)** buttons to set the time.
   • **Arrow (◄/►)** buttons: Switches between hour and minute.
   • **Numeric (0~9)** buttons: sets the value.

◆ **TV Program (for the Switch-on time mode)**

   Press the **Arrow (◄/►)** or **Numeric (0~9)** buttons to select a TV programme for Switch-on time mode.

System Setup >> System Information
System Information
You can check system information like Model Name, Hardware version, Loader version, Main Software Version, and Main Software Build Date.

Channel Setup

You can edit TV and Radio channels and the favourite channel group in this menu.
Press the **Menu (▥)** button. Select **Channel Setup** using the **Arrow (◄/►)** buttons on the main menu.

Channel Setup >> Delete Channels
Delete Channels

You can delete TV and Radio channels you want.

1 Select **Delete Channels** using the **Arrow (▲/▼)** buttons on the **Channel Setup** menu and press the **OK** button.

2 Select the channel you want to delete using the **Arrow (▲/▼)** buttons and press the **RED(Clock)** button.
Press the **Arrow (◄/►)** buttons to switch between TV and Radio List.
You can select multiple channels.
Bulleted list indicates selected channels.

**3** Press the **OK** button to delete selected channels.

Channel Setup >> Delete All Channels
Delete All Channels

You can delete all channels.

1 Select **Delete All Channels** using the **Arrow (▲/▼)** buttons on the **Channel Setup** menu and press the **OK** button. System message dialog box appears asking you to confirm it.

2 Select **Yes** using the **Arrow (◄/►)** buttons and press the **OK** button to delete all channels.
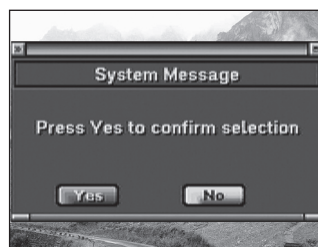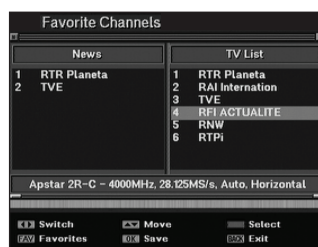
Channel Setup >> Favorite Channels
Favorite Channels

You can edit favourite channels. There are 9 Favourite channel groups (**News**, **Sports**, **Movie**, **Music**, **Shopping**, **Kids**, **Adults**, **Drama**, and **Education**).

1 Select **Favorite Channels** using the **Arrow (▲/▼)** buttons on the Channel Setup menu and press the **OK** button.

2   Select channels that you want to edit using the **Arrow (▲/▼)** or **Page (▲/▼)** buttons in the
TV/Radio List and press the **RED(Clock)** button.
Selected channels are listed in the favourite group.
Pressing the **TV/Radio (📺/🎵)** button switches between TV and Radio List.

3   Press the **FAV (♥)** button to select another favourite group.

4   Select channels that you want to edit using the **Arrow (▲/▼)** buttons in the **TV/Radio List**
and press the **RED(Clock)** button.
Repeat steps from 3 to 4.

5   Press the **OK** button to confirm.

Channel Setup >> Edit Channels
Edit Channels
You can rename the channel list.
Select **Edit Channels** using the **Arrow (▲/▼)** buttons on the Channel Setup menu and press
the **OK** button.
• **FAV (♥)** button: Shows Favourite channel lists
• **Arrow (◄/►)** buttons: Switches between TV and Radio channel lists

To rename the channel list

1   Select the channel you want to rename using the **Arrow (▲/▼)**, **PR+/-**, or **Page (▲/▼)**
buttons and press the **GREEN(Sleep)** button. Font Table will appear.

2   Press the **BLUE(Pause)** button to delete the selected channel name.

3   Select characters using the **Arrow** buttons and press the **RED(Clock)** button to enter
characters.
• **YELLOW(Audio)** button: Enters space
• **BLUE(Pause)** button: Hits the back space
• **RED(Clock)** button: Selects the input

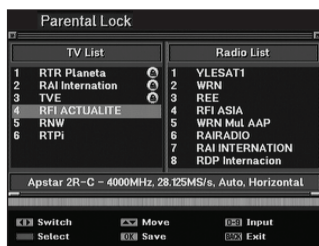**4**   Press the **OK** button to confirm.

Parental Lock

You can lock the channels to prohibit unauthorised users from watching specific channels.
Press the **Menu (▥)** button. Select **Parental Lock** using the **Arrow (◄/►)** buttons on the
main menu.

Parental Lock >> Channel Lock

Channel Lock

Whenever you want to see the locked channel you will be prompted to enter the PIN Code in the dialog box.

1 Select **Channel Lock** using the **Arrow (▲/▼)** buttons on the Parental Lock menu and press the **OK** button.

2 Select the channel that you want to lock using the **Arrow (▲/▼)**, **PR+/-**, **Page (⬆/⬇)**, or **Numeric (0~9)** buttons and press the **RED(Clock)** button.
Selected channels will be displayed with locking-marked.
Press it again to clear.
Arrow (◄/►) buttons: Switches between TV and Radio List.

3 Press the **OK** button to confirm.

Parental Lock >> System Lock

System Lock

Whenever you want to use the locked system you will be prompted to enter the PIN Code in the request dialog box.

1 Select **System Lock** using the **Arrow (▲/▼)** buttons on the **Parental Lock** menu and press the **OK** button.
System Lock dialog box appears.

2 Select **Yes** using the **Arrow (◄/►)** buttons and press the **OK** button to select a lock status.

Parental Lock >> Scramble Lock

Scramble Lock

Whenever you want to watch scrambled channels you will be prompted to enter the PIN Code in the request dialog box.

1 Select **Scramble Lock** using the **Arrow (▲/▼)** buttons on parental lock menu and press the **OK** button.
Scramble Lock dialog box appears.

2 Select **Yes** using the **Arrow (◄/►)** buttons and press the **OK** button to select a lock status.
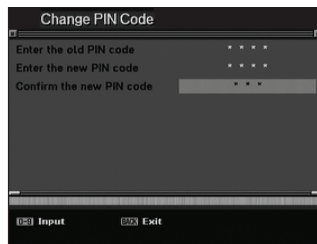
Parental Lock >> Change PIN Code

Change PIN Code

You can create a new PIN code in this menu. "**0000**" is the default password.

1   Select **Change PIN Code** using the **Arrow (▲/▼)** buttons on the **Parental Lock** menu and press the **OK** button.

2   Enter the old PIN code.

3   Enter the new PIN code.

4   Enter the new PIN code again to confirm.

Note

• Please keep in mind that the PIN code must be a four-digit number. In case you forgot your PIN code, contact your local dealer.

Game

This product provides lots of games for your entertaining environment.
Select Game using the **Arrow (◄/►)** buttons on the main menu.

1   Select a game using the **Arrow (▲/▼)** buttons on the Game menu and press the **OK** button.

2   According to the instruction displayed on screen, you can enjoy games using the **Arrow**, **Numeric (0~9)**, and **OK** buttons.

Common Interface

You can enjoy not only scrambled services using the Conditional Access Modules (CAM), but also free-to-air services. Types of common interface module and smart card differ depending on the service provider. If you want to use conditional access modules, contact your service provider or distributor.
• Without using the Conditional Access (CA) only, free-to-air services are available.

Conditional Access

Common Interface module and smart card depend on the service provider. If you need Conditional Access Module (CAM), contact your service provider or distributor.

Troubleshooting

Problem	Solution
No display LED on the front panel. No power supply	Plug the power cord correctly.
No Picture	Ensure that the STB is switched on. Check the connection status. Check channels and video output status.
Poor picture quality	Check the signal level. If this is too low, try adjusting the alignment of your dish.
No Sound	Check the volume level of the TV and STB. Check the mute status of the TV and STB. Check the connection of audio cable.
Remote Control does not operate	Point remote control directly towards your receiver. Check and replace batteries. Check if anything blocks the front panel.
Service is not running or scrambled.	Make sure the smart card is appropriate for the selected service.
You have forgotten your PIN code.	See chapter 5, "Parental Lock" in this User's manual.

Specifications

Demodulation	Waveform	QPSK
	Symbol Rate	2 ~ 45 Msps
	Code Rate	1/2, 2/3, 3/4, 5/6, 7/8
Video Encoder	MPEG-2	MPEG-2 MP@ML
	Data Rate	15 Mbits/s
	Video Standard	PAL
	Aspect Ratio	4:3, 16:9
Processor & Resources	Processor	ST 5518 or ST 5105
	SDRAM	8 Mbyte (Optional: 16Mbyte, 32Mbyte)
	Flash	2 Mbyte (Optional: 4 Mbyte, 8Mbyte)
Smart Card Slot		X (Optional: 1 CAS, 2 CAS)
Common Interface		X(Optional: 1CI, 2CI)
LNB Input	Connector	IEC 169-24, F Type
	Input Frequency	950 ~ 2150 MHz
	LNB Voltage	13/18V
	Tone Switch	22 kHz
TV Scart		RGB, CVBS, Audio L/R, VCR return path (Optional)
VCR Scart		CVBS in-out, Audio L/R in-out (Optional)
12V Switch	S/W controlled	0 or 12V (Optional)
	Current	50 mA (Optional)
SPDIF	Coaxial(RCA)	Optional
	Optical	Optional
Audio Output	Connector	2 RCA (L/R)
Video Output	Connector	1 RCA
RF Modulator	Connector	IEC 169-2, Male/Female
	Output	PAL B/G, I, D/K
	Channel	21 ~ 69
RS232 Port	Connector	Mini D-SUB Type
	Speed	115,200 bps
Power Supply	Type	SMPS
	Input Voltage	100 ~ 240 V AC, 50/60 Hz
Front Panel	Buttons	7 (UP, DOWN, LEFT, RIGHT, OK, MENU, POWER)
Connectors	Tuner	O
	Scart	O (Optional)
	RS232	O
	RCA	O (Optional)
	0-12V	O (Optional)
	SPDIF	O (Optional)
	RF Modulator	O (Optional)
Mechanical	Dimension	300 X 220 X 63
	Weight	2 KG
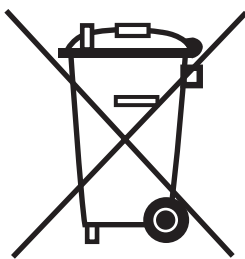
Correct Disposal of This Product
(Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)
This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life.
To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.
Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.
Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

IM02-001001 [ENGLISH]   **Rev.01**